

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	)	WRIGHT, et al.
	)	
For:	)	UPRIGHT VACUUM CLEANER
	)	WITH CYCLONIC AIRFLOW
	)	
Serial No.:	)	Unknown
	)	
Filed:	)	Herewith
	)	
Examiner:	)	Unknown
	)	
Art Unit:	)	Unknown
	)	
Attorney Docket No.:	)	RYL 2 0535-3-4

Cleveland, Ohio 44114-2518

REISSUE APPLICATION  
DECLARATION AND POWER OF ATTORNEYAssistant Commissioner of Patents  
Washington, D.C. 20231

Dear Sir:

As a below named inventor, I hereby declare that:

I believe that I am a first, original, and joint inventor of the subject matter which is described and claimed in Letters Patent No. 6,026,540 granted on February 22, 2000 and in the foregoing specification and for which invention I solicit a reissue patent. The entire title to Patent No. 6,026,540 has vested in Royal Appliance Mfg. Co., and Ohio corporation, by an assignment recorded on November 9, 1998 on Reel 9447 beginning at Frame 0028.

I hereby state that I have reviewed and understand the contents of the above-identified reissue application, including the amended and additional claims therein.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with 37 C.F.R. § 1.56(a).

STATEMENT OF INOPERATIVENESS OR INVALIDITY

I believe our original Patent No. 6,026,540 dated February 22, 2000 to be partly inoperative or invalid because of error without any deceptive intent on the part of the applicants or the assignee.

The patent is partly inoperative or invalid by reason of the patentees' claiming less than they had a right to claim. This error came to the attention of the patentees upon a review of competing products which only recently became available in the marketplace. This insufficiency in the claims applies to new claims 23-65. These claims recite:

23. A vacuum cleaner comprising:

a body section having a cyclonic airflow chamber for separating contaminants from a suction airstream;

a suction opening communicating with said body section, said suction opening being fluidly connected to said cyclonic airflow chamber;

a main filter housing connected to said body section, said main filter housing being located within said cyclonic airflow chamber;

a filter element mounted in said main filter housing, wherein said main filter housing comprises a plurality of apertures so that an airstream can flow from said cyclonic airflow chamber into said main filter housing; and,

an airstream suction source located on said body section, said suction source communicating with said main filter housing.

24. The vacuum cleaner of claim 23, wherein at least a portion of said main filter housing is selectively detachable from said body section.

25. The vacuum cleaner of claim 24, wherein said filter element is selectively retained within said at least a portion of said main filter housing.

26. The vacuum cleaner of claim 24, wherein said at least a portion of said main filter housing comprises at least one tab extending therefrom, wherein said at least one tab of said at least a portion of said main filter housing  
5 cooperates with adjacent elements mounted on said body section to secure said at least a portion of said main filter housing to said body section.

27. The vacuum cleaner of claim 24, wherein said main filter housing comprises an airflow outlet which communicates with said airstream suction source.

28. The vacuum cleaner of claim 23, wherein said filter element is approximately frusto-conical in shape.

29. The vacuum cleaner of claim 23, wherein said filter element comprises a thermoplastic material.

30. The vacuum cleaner of claim 23, wherein said main filter housing comprises a closed bottom end.

31. The vacuum cleaner of claim 30, wherein said bottom end of said main filter housing has a diameter that is larger than is a diameter of an adjacent portion of said main filter housing.

32. A vacuum cleaner comprising;  
a nozzle base;  
an upright body section pivotably mounted on said nozzle base;  
5 a cyclonic airflow chamber defined in said upright body section, wherein said cyclonic airflow chamber comprises an airflow inlet and an airflow outlet;  
a suction opening defined in said nozzle base, said suction opening being fluidly connected with said airflow  
10 inlet of said cyclonic chamber;  
an airstream suction source located on one of said

nozzle base and said upright body section, said suction source having an inlet fluidly connected to said airflow outlet of said cyclonic chamber and an exhaust outlet;

15           a main filter housing connected to said upright body section, said main filter housing being located within said cyclonic airflow chamber; and,

20           a filter element mounted in said main filter housing, wherein said main filter housing comprises a plurality of apertures so that an airstream can flow from said cyclonic airflow chamber into said main filter housing.

33. The vacuum cleaner of claim 32, wherein said airflow outlet of said cyclonic airflow chamber is coaxial with a longitudinal axis of said cyclonic airflow chamber.

34. The vacuum cleaner of claim 32, wherein said filter element is substantially coaxial with a longitudinal axis of said cyclonic airflow chamber.

35. The vacuum cleaner of claim 32, wherein said airflow inlet of said cyclonic airflow chamber is tangential to a longitudinal axis of said cyclonic airflow chamber.

36. The vacuum cleaner of claim 32, further comprising a conduit fluidly connecting said suction opening of said nozzle base with said airflow inlet of said cyclonic airflow chamber.

37. The vacuum cleaner of claim 32, wherein at least a portion of said main filter housing is selectively detachable from said upright body section.

38. The vacuum cleaner of claim 37, wherein said filter element is selectively retained within said at least a portion of said main filter housing.

39. The vacuum cleaner of claim 32, wherein said main filter housing comprises an airflow outlet which communicates with said airstream suction source.

40. The vacuum cleaner of claim 32, wherein said filter element is approximately frusto-conical in shape.

41. The vacuum cleaner of claim 32, wherein said filter element comprises a thermoplastic material.

42. A vacuum cleaner comprising:  
a body section having a cyclonic airflow chamber for separating contaminants from a suction airstream;  
a suction opening defined on said body section, said  
5 suction opening being located upstream from said cyclonic airflow chamber and communicating therewith;  
an airstream suction source located on said body section, said suction source being located downstream from said cyclonic airflow chamber and communicating therewith;  
10 a main filter housing located within said cyclonic airflow chamber; and,  
a filter element mounted in said main filter housing, wherein said main filter housing comprises a plurality of apertures so that an airstream can flow from said  
15 cyclonic airflow chamber through said filter element and toward said airstream suction source.

43. The vacuum cleaner of claim 42, further comprising a dirt cup, wherein said cyclonic airflow chamber is at least partially located within said dirt cup.

44. The vacuum cleaner of claim 43, wherein said main filter housing is arranged substantially coaxial with a longitudinal axis of said dirt cup.

45. The vacuum cleaner of claim 42, wherein said main filter housing is arranged substantially coaxial with a

longitudinal axis of said cyclonic airflow chamber.

46. The vacuum cleaner of claim 42, wherein said cyclonic airflow chamber comprises an airflow outlet which is substantially coaxial with a longitudinal axis of said cyclonic airflow chamber.

47. The vacuum cleaner of claim 42, wherein said cyclonic airflow chamber comprises an airflow inlet which is substantially tangential to a longitudinal axis of said cyclonic airflow chamber.

48. The vacuum cleaner of claim 47, further comprising a conduit fluidly connecting said suction opening of said body section with said cyclonic airflow chamber.

49. The vacuum cleaner of claim 42, wherein said filter element is approximately frusto-conical in shape.

50. The vacuum cleaner of claim 49, wherein said filter element comprises a thermoplastic material.

51. The vacuum cleaner of claim 42, wherein at least a portion of said main filter housing is selectively detachable from said body section, thereby allowing access to said filter element.

52. A vacuum cleaner comprising:

a body section having a cyclonic airflow chamber defined therein;

a suction opening defined on said body section, said  
5 suction opening being located upstream from said cyclonic airflow chamber and communicating therewith;

a main filter housing located within said cyclonic airflow chamber;

a filter element selectively mounted in said main

10 filter housing wherein said filter element and said main  
filter housing cooperate to define a tortuous airflow path;  
and,

an airstream suction source located on said body  
section, said suction source being located downstream from  
15 said cyclonic airflow chamber and communicating therewith.

53. The vacuum cleaner of claim 52, wherein said  
cyclonic airflow chamber comprises an airflow outlet, wherein  
said main filter housing is located adjacent said airflow  
outlet.

54. The vacuum cleaner of claim 53, wherein said  
main filter housing comprises a plurality of apertures so that  
an airstream can flow from said cyclonic airflow chamber into  
said main filter housing, through said filter element and  
5 toward said airstream suction source.

55. The vacuum cleaner of claim 53, wherein said  
airflow outlet of said cyclonic airflow chamber is  
substantially coaxial with a longitudinal axis of said  
cyclonic airflow chamber.

56. The vacuum cleaner of claim 52, further  
comprising a dirt cup mounted in said body section, wherein  
said cyclonic airflow chamber is at least partially located  
within said dirt cup.

57. The vacuum cleaner of claim 56, wherein said  
main filter housing is arranged substantially coaxial with a  
longitudinal axis of said dirt cup.

58. The vacuum cleaner of claim 52, wherein said  
main filter housing is arranged substantially coaxial with a  
longitudinal axis of said cyclonic airflow chamber.

59. The vacuum cleaner of claim 52, wherein said

cyclonic airflow chamber comprises an airflow inlet, said airflow inlet being substantially tangential to a longitudinal axis of said cyclonic airflow chamber.

60. The vacuum cleaner of claim 52, wherein at least a portion of said main filter housing is selectively detachable from said body section.

61. The vacuum cleaner of claim 60, wherein said at least a portion of said main filter housing comprises tabs and is rotated to selectively detach said at least a portion of said main filter housing from said body section.

62. The vacuum cleaner of claim 60, wherein said filter element is selectively held in said at least a portion of said main filter housing.

63. The vacuum cleaner of claim 52, wherein said filter element is approximately frusto-conical in shape.

64. The vacuum cleaner of claim 63, wherein said filter element comprises a thermoplastic material.

65. The vacuum cleaner of claim 52, wherein said main filter housing comprises a closed bottom end.



POWER OF ATTORNEY

I hereby appoint the following attorneys and/or agents to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Mark E. Bandy,	Reg. No. 35,788	Scott A. McCollister,	Reg. No. 33,961
Brian G. Bembenick,	Reg. No. 41,463	James W. McKee,	Reg. No. 26,482
John P. Cornely,	Reg. No. 41,687	Richard J. Minnich,	Reg. No. 24,175
David B. Cupar	Reg. No. 47,510	Jay F. Moldovanyi,	Reg. No. 29,678
Joseph D. Dreher,	Reg. No. 37,123	Philip J. Moy,	Reg. No. 31,280
Matthew P. Dugan,	Reg. No. 44,663	Timothy E. Nauman,	Reg. No. 32,283
Christopher B. Fagan,	Reg. No. 22,987	Erik J. Overberger	Reg. No. P48,556
Patrick D. Floyd,	Reg. No. 39,671	Scott C. Rand	Reg. No. 40,359
Jude A. Fry,	Reg. No. 38,340	Patrick R. Roche,	Reg. No. 29,580
Steven M. Haas,	Reg. No. 37,841	James E. Scarbrough,	Reg. No. 47,056
Michael E. Hudzinski,	Reg. No. 34,185	Ann M. Skerry	Reg. No. 45,655
Edward T. Kennedy,	Reg. No. 48,478	Mark S. Svat,	Reg. No. 34,261
Richard M. Klein,	Reg. No. 33,000	Anuj K. Wadhwa,	Reg. No. P-50-407
Thomas E. Kocovsky, Jr.,	Reg. No. 28,383	Joseph E. Waters,	Reg. No. P-50,427
Sandra M. Koenig,	Reg. No. 33,722	Jason A. Worgull,	Reg. No. 48,044

Address all telephone calls to: Patrick R. Roche  
at telephone number: (216) 861-5582.

Address all correspondence to:

Patrick R. Roche  
FAY, SHARPE, FAGAN,  
MINNICH & MCKEE, LLP  
1100 Superior Avenue, Seventh Floor  
Cleveland, OH 44114-2518

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of first joint inventor: **Michael F. WRIGHT**

Inventor's Signature: Michael F. Wright

Date: 2/7/02

Residence: Stow, OH

Citizenship: USA

Post Office Address: 4311 Leewood Road  
Stow, OH 44224

Full Name of second joint inventor: **Charles J. THUR**

Inventor's Signature: Charles J. Thur

Date: 2-7-02

Residence: Broadview Hts, OH

Citizenship: USA

Post Office Address: 8570 Windsor Way  
Broadview Hts., OH 44147

Full Name of third joint inventor: **Mark E. CIPOLLA**

Inventor's Signature: Mark E. Cipolla

Date: 2-7-02

Residence: Chardon, OH

Citizenship: USA

Post Office Address: 8400 Woodhill Drive  
Chardon, OH 44024

Full Name of fourth joint inventor: **Brett A. LATIMER**

Inventor's Signature: Brett A. Latimer

Date: 2/8/02

Residence: Painesville, OH

Citizenship: USA

Post Office Address: 110 Peachtree Lane  
Painesville, OH 44077

Full Name of fifth joint inventor: **Paul D. STEPHENS**

Inventor's Signature: Paul D. Stephens

Date: 2-7-02

Residence: Twinsburg, OH

Citizenship: USA

Post Office Address: 2811 Myrick Lane  
Twinsburg, OH 44087

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	)	WRIGHT, et al.
	)	
For:	)	UPRIGHT VACUUM CLEANER
	)	WITH CYCLONIC AIRFLOW
	)	
Serial No.:	)	Unknown
	)	
Filed:	)	Herewith
	)	
Examiner:	)	Unknown
	)	
Art Unit:	)	Unknown
	)	
Attorney Docket No.:	)	RYL 2 0535-3-4

Cleveland, Ohio 44114-2518

## ASSENT OF ASSIGNEE TO REISSUE

The undersigned assignee of the entire interest in and to the above-identified Letters Patent hereby assents to the accompanying application.

ROYAL APPLIANCE MFG. CO.

Date 2-11-02By Robert M. McKim  
Title VICE PRESIDENT, ENGINEERING